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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/695,531	10/23/2000	Thomas T. Yamashita	YAMA-008	3483

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EXAMINER

GELLNER, JEFFREY L

ART UNIT PAPER NUMBER

3643

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/695,531

Applicant(s)

YAMASHITA, THOMAS T.

Examiner

Jeffrey L. Gellner

Art Unit

3643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8,10-15 and 17-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 10-12 is/are allowed.
- 6) ☒ Claim(s) 1,3-8,13-15 and 17-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. §102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-8, 13-15, 17-19, and 21 are rejected under 35 U.S.C. §102(b) as being anticipated by Muir (US 4,952,229).

As to Claim 1, Muir discloses a composition comprising a plurality of distinct microbial species (table at col. 3 and col. 4) comprising a plurality of *B. subtilis* (col. 4 1st bacterium listed) and *B. thuringiensis* (col. 3 last line), wherein each of these two members of the plurality is antagonistic against a plurality of microbial pathogens, non-pathogenic, tolerant of high temperatures, grows rapidly, and proliferates on complex substrate (by Applicant's specification at page 2 lines 15-23); wherein each member has been proliferated on a complex substrate ("standard microbial fermentation techniques" of col. 3 lines 54 and 55).

As to Claim 3, Muir further discloses 5 distinct microbial species (table at col. 4).

As to Claim 4, Muir further discloses 5 distinct bacterial species (table at col. 4).

As to Claim 5, Muir further discloses 2 distinct fungal species (col. 5 table at top of col.).

As to Claims 6 and 7, Muir further discloses a liquid carrier ("water" of col. 9 line 66).

As to Claim 8, Muir further discloses a solid carrier ("diatomaceous earth" of col. 3 lines 56-60).

As to Claim 13, Muir further discloses applying to soil or plant (col. 2 lines 30-32).

As to Claim 14, Muir discloses a composition comprising a plurality of distinct microbial species (table at col. 3 and col. 4) comprising *B. subtilis* (col. 4 1st bacterium listed) and *B. thuringiensis* (col. 3 last line), wherein each member is antagonistic against a plurality of microbial pathogens (“provides much more positive pathogen suppression” of col. 3 lines 52-53); non-pathogenic towards plants and animals (“greatly improves the plant performance” of col. 3 lines 50-53); tolerant of high temperatures (inherent in that any microbe used as a soil adjuvant is tolerant to high temperatures since soils reach these temperatures); grows rapidly (col. 5 lines 20-22); and has been proliferated on a complex substrate (“standard microbial fermentation techniques” of col. 3 lines 54-55); and combined (“standard microbial fermentation techniques” of col. 3 lines 54-55). The composition of Muir inherently performs the method steps recited in Claim 14.

As to Claim 15, Muir further discloses separately proliferating the species (“additional microbes can be added to” of col. 4 lines 19-21).

As to Claims 17 and 18, Muir further discloses a liquid carrier (“water” of col. 9 line 66).

As to Claim 19, Muir further discloses a solid carrier (“diatomaceous earth” of col. 3 lines 56-60).

As to Claim 21, Muir further discloses 1 distinct fungal species (col. 5 table at top of col.).

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Claim Rejections - 35 USC §103

The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 20 is rejected under 35 U.S.C. §103(a) as being unpatentable over Muir (US 4,952,229).

As to Claim 20, the limitations of Claim 14 are disclosed as described above. Not disclosed is identifying candidate microbial species by a series of assays which identify the species to characteristics (i)-(v). Examiner takes official notice that it old and notoriously well known in the biological sciences to test with assays so as to derive information on traits and characteristics of biological entities, such as microbes, before addition to a composition. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Muir by identifying species with assays so as to select a special multi-component composition such that a potent, compatible, and highly active bioculture results (see Muir at col. 5 lines 20-26).

Allowable Subject Matter

Claims 10-12 are allowed over the art of record.

Response to Arguments

Applicant's arguments received 5 April 2004 have been fully considered but they are not persuasive. Applicant's argument is that Muir discloses a composition with 14 microbial species

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all of which do not possess the 5 specific traits that are stated as (a) through (e) in claim 1 and (i) through (v) in claim 14. Examiner considers Muir to disclose a composition that can be divided into two pluralities. The first plurality contains two microbial species - *B. subtilis* and *B. thuringiensis*. This plurality discloses Applicant's invention as claimed in independent claims 1 and 14 (along with the dependent claims). The other plurality of Muir's composition is a group of any of the other listed microbial species. Dividing Muir's composition into two pluralities is deemed proper by the Examiner because of Applicant's use of the open transitional "comprising" in claims 1 and 14.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Jeffrey L. Gellner whose phone number is 703.305.0053. The

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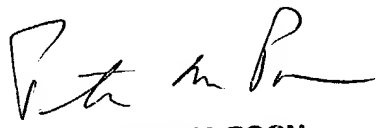
Examiner can normally be reached Monday through Thursday from 8:30 am to 4:00 pm. The Examiner can also be reached on alternate Fridays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Peter Poon, can be reached at 703.308.2574. The official fax telephone number for the Technology Center where this application or proceeding is assigned is 703.872.9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.1113.



Jeffrey L. Gellner



PETER M. POON
SUPERVISORY PATENT EXAMINER